

**IN THE ABSTRACT:**

Please replace the existing abstract with the following replacement abstract:

A system for run-time analysis of software programs using traces comprises a software program including two or more trace points, a trace control channel, a trace channel and a runtime tracer. The trace control channel includes an identification of one or more selected trace points of the two or more trace points. The runtime tracer is configured to concurrently execute a first and a second instance of the software program. Each instance of the first and second instances is configured to interact with the trace control channel to save trace information corresponding to the one or more selected trace points in the trace channel.